IN THE SPECIFICATION

Please replace the title with the following:

PREDICTING OUTPUT ~~VALUES IN COMPUTATION REUSE~~ OF A REUSE REGION USING PRIOR EXECUTION RESULTS ASSOCIATED WITH THE REUSE REGION

A1

On page 11, pleaser replace paragraph 3 with the following:

A2

As reuse region 10 executes, new results are created as shown by path 38. The new results are provided to comparator 40, as are the predicted results as shown by path 25. Comparator 40 compares the predicted results and the new results. When comparator 40 determines that the predicted results match the new results, the speculative execution of code region 20 is committed and is no longer speculative. When this occurs, the prediction of the results has been ~~successful~~ successfully reused. From an execution time standpoint, the scenario just described appears much like that of **Figure 1B** (except that in **Figure 1B**, the previous results are used instead of the predicted results used in **Figure 1C**). Code region 20 is executed using the predicted results when reuse region 10 is encountered, and a performance gain is achieved by bypassing the execution of reuse region 10.

On page 18, pleaser replace paragraph 2 with the following:

A3

In one embodiment, the determination that the reuse region instance information contains the data output is made if [[a]] current data input to the reuse region matches any input information within the reuse region instance information and the reuse region is identified by a normal reuse instruction inserted by the compiler at the beginning of reuse region. The reuse region is identified by the normal reuse instruction when the instance with matching input information may not be potentially invalidated. As described above, the invalidation may occur if the reuse region includes an aliased memory load instruction. In one embodiment, if processing logic in the processor determines that [[a]] data output of the reuse region is contained within the reuse region instance information, the reuse region is bypassed and output values from the matching instance are used to execute the code following the reuse region.

On page 27, pleaser replace paragraph 1 with the following:

A4

At decision block 548, a determination is made as to whether the predicted output values match the actual results. If they do not, the speculative execution performed in processing block 544 is squashed (processing block 554), and values of corresponding confidence counters in the RVP buffer are updated to reflect that the results of prediction (processing block 556). Specifically, each confidence counter corresponding to an output value which ~~prediction~~ was ~~incorrect~~ predicted incorrectly is decreased, and if any output

AH
end

value was predicted correctly, a corresponding confidence counter is incremented.